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HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			CONTINO, PAUL F	
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			2114	

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/742,699	Applicant(s) TANIGUCHI ET AL.	
	Examiner Paul Contino	Art Unit 2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION: Non-Final Rejection

Claim Objections

1. Claim 19 is objected to because of the following informalities: line 2 states "17;" where "17," is more consistent. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 17 and 19-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Computer programs may not be patented. Claims 19 and 20 are rejected based upon their dependency to claim 17.

3. Claims 21 and 24-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 21 fails to include limitations which present a useful, concrete, and tangible result. The claims focus on individual steps and/or structure in defining the invention. A useful, concrete and tangible result must be either specifically recited in the claims or flow inherently therefrom. There is no result disclosed in claim 21 which would make it evident to a user that

Art Unit: 2114

the methods of diagnosing, recognizing, performing, and predicting actually occurred. The Examiner recommends including limitations similar those disclosed in claim 23 in order to overcome the non-statutory rejection of claim 21. Claims 24-27 are rejected based upon their dependency to claim 21.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 3 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claims 3 and 19, in lines 6 and 11, and lines 6 and 9, respectively, the limitation diagnosing/detecting “the state of each part of the device” would imply that every single component of the device is being diagnosed. As an example, if the device were a printer, diagnosing “each part” of the printer would include detecting a state of a display, the external chassis, the wear of buttons, fraying on an electrical cord, position of non-electrical parts, etc. The scope of the statement “each part” is unreasonably broad and not discussed in the Specification in a manner in such a way as to enable the making or use of the invention by one skilled in the art.

* * *

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In line 11, the statement “each part” of a device is unreasonably broad and is not distinctly claimed as to what those parts may encompass.

In order to overcome the 35 USC 112 rejections, the Examiner recommends amending the limitation “detecting the state of each part of the device” to read “detecting the state of parts of the device”.

6. Claims 1, 3, 4, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 17 recite the limitation "the diagnosis" in the last line of the claim. There is insufficient antecedent basis for this limitation in the claim. The Examiner interprets “the diagnosis” to be “the diagnosis section” and “the diagnosis program”, respectively, in order to apply prior art.

Claim 4 recites the limitation "the second diagnosis program" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 5, 6, 8, 10, 12-14, 17, 19, 21, 23, 24, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Quist et al. (U.S. Patent No. 6,199,018).

As in claims 1 and 17, Quist et al. discloses a failure prediction system/program comprising:

multiple devices (*Fig. 1 # 11*); and

a device management server managing the multiple devices via a network (*Fig. 1 #s 14,15; column 4 lines 13-21 and column 5 lines 51-67*);

wherein each of the multiple devices includes a device diagnosis section for diagnosing a state of the device to send first diagnosis results obtained by the diagnosis to the device management server (*Fig. 1 #12; column 3 line 57 through column 4 line 4, and column 5 line 45 through column 6 line 6*); and

the device management server includes a failure prediction section for recognizing a state related to a failure based on the first diagnosis results sent by the device diagnosis section of each of the devices (*column 4 lines 13-29 and column 4 line 56 through column 5 line 3*), performing diagnosis as for the recognized state related to a failure (*column 4 lines 13-29 and column 4 line 56 through column 5 line 3*), and predicting a device with a failure tendency based on second diagnosis results obtained by the diagnosis [section] (*column 4 line 23 through column 5 line 35, and column 5 line 51 through column 6 line 6, where it is interpreted that after a first diagnosis is made by the server 14/15 and updated parameters are sent to a device 12, that a better determination and prediction of failure of a machine 11 would be determined during the next/second retrieval of diagnostic result information, which occurs constantly, as disclosed in column 4 line 24*).

As in claim 5, Quist et al. discloses each of the devices comprises an operation restriction section for restricting a part or all of operations of the device in response to a signal from the device management server (*column 4 lines 27-29*).

As in claim 6, Quist et al. discloses each of the devices comprises a warning section for giving a warning that at least one of a failure of the device is predicted and operations are restricted, in response to a signal from the device management server (*column 3 lines 40-45 and column 4 lines 27-29*).

As in claim 8, Quist et al. discloses the diagnosis by each of the devices of the state of the device is periodically performed (*column 4 lines 23-27 and column 4 lines 64-67*).

As in claim 10, Quist et al. discloses the notification by each of the devices of the results of diagnosis of the state of the device to the device management server is periodically performed (*column 4 lines 23-27*).

As in claim 12, Quist et al. discloses a device to be managed by a device management server via a network, the device comprising:

a device diagnosis section for diagnosing a state of the device to notify the device management server of diagnosis results obtained by the diagnosis via the network (*Fig. 1; column 3 line 16 through column 4 line 40*).

As in claim 13, Quist et al. discloses the device further comprises an operation restriction section for restricting operations of the device in response to a signal from the device management server (*column 4 lines 27-29*).

As in claim 14, Quist et al. discloses each of the devices comprises a warning section for giving a warning to the effect that at least one of a failure of the device is predicted and operations are restricted, in response to a signal from the device management server (*column 3 lines 40-45 and column 4 lines 27-29*).

As in claim 19, Quist et al. discloses the device diagnosis section of the device comprises:

a communication part for communicating with the device management server (*Fig. 1; column 4 lines 2-4*);

a program execution part for executing a diagnosis program for diagnosing the state of *[[each]]* part[s] of the device (*Fig. 1; column 3 lines 27-56*);

a storage part for preserving settings of the diagnosis program and the first diagnosis results (*Fig. 1; column 3 lines 27-56*); and

a detection part for detecting the state of *[[each]]* part[s] of the device (*Fig. 1; column 3 lines 27-56*).

As in claim 21, Quist et al. discloses a failure prediction method comprising:

diagnosing the state of multiple devices connected to a network (*Fig. 1; column 3 line 57 through column 4 line 4, and column 5 line 45 through column 6 line 6*);

recognizing a state related to a failure based on results of the diagnosis of the multiple devices (*column 3 line 57 through column 4 line 4, and column 4 line 41 through column 6 line 6*);

performing diagnosis as for the state related to a failure (*column 3 line 57 through column 4 line 4, and column 4 line 41 through column 6 line 6*); and

predicting a device with a failure tendency based on the diagnosis results (*column 3 line 57 through column 4 line 4, and column 4 line 41 through column 6 line 6*).

Art Unit: 2114

As in claim 23, Quist et al. discloses when a device with a failure tendency is predicted, at least one of the following occurs:

operations of the device with a failure tendency are stopped (*column 4 lines 28-29*); and
a warning is given to the user of the device after the prediction (*column 3 lines 42-44*).

As in claim 24, Quist et al. discloses the diagnosis by each of the devices of the state of the device is periodically performed (*column 4 lines 23-27 and column 4 lines 64-67*).

As in claim 26, Quist et al. discloses the notification by each of the devices of the results of diagnosis of the state of the device to the device management server is periodically performed (*column 4 lines 23-27*).

* * *

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 7, 9, 11, 12, 15, 16, 17, 21, 22, 25, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Bernklau-Halvor (U.S. Patent No. 6,782,495).

As in claim 1, Bernklau-Halvor discloses a failure prediction system comprising:

multiple devices (*Fig. 1 #14; column 2 lines 13-39, printers*); and

a device management server managing the multiple devices via a network (*Fig. 1 #10; column 2 lines 13-39, support server*);

wherein each of the multiple devices includes a device diagnosis section for diagnosing a state of the device to send first diagnosis results obtained by the diagnosis to the device management server (*column 2 lines 13-39, printer diagnostic utility*); and

the device management server includes a failure prediction section for recognizing a state related to a failure based on the first diagnosis results sent by the device diagnosis section of each of the devices, performing diagnosis as for the recognized state related to a failure, and predicting a device with a failure tendency based on second diagnosis results obtained by the diagnosis (*column 2 lines 13-39 and column 4 lines 41-67, where the first diagnosis results are interpreted as the printer having a problem and requesting support, the server sending a printer diagnostic utility 12 is interpreted as diagnosis related to failure, and the diagnosis of usage information received thereafter by the support server is interpreted as second diagnosis results; column 11 lines 19-37 discloses a warning condition, which implies a failure tendency*).

As in claim 7, Bernklau-Halvor discloses the device comprises a printer (*Fig. 1 #14*).

As in claim 9, Bernklau-Halvor discloses the diagnosis by each of the devices of the state of the device is performed when an event occurs (*column 2 lines 13-39 and column 4 lines 41-67, where the diagnosis is in response to a download of a usage utility*).

As in claim 11, Bernklau-Halvor discloses the detection of a state related to a failure by the failure prediction section of the device management server is performed based on a process leading to a failure of the device (*column 2 lines 13-39, column 4 lines 41-67, and column 11 lines 19-37, where a warning condition is interpreted as part of a process leading to a failure*).

As in claim 12, Bernklau-Halvor discloses a device to be managed by a device management server via a network, the device comprising:

a device diagnosis section for diagnosing a state of the device to notify the device management server of diagnosis results obtained by the diagnosis via the network (*column 2 lines 13-39 and column 4 lines 41-67*).

As in claim 15, Bernklau-Halvor discloses a printer to be managed by a device management server via a network, the printer comprising:

a device diagnosis section for diagnosing a state of the printer to notify the device management server of diagnosis results obtained by the diagnosis via the network (*column 2 lines 13-39 and column 4 lines 41-67*).

As in claim 16, Bernklau-Halvor discloses a device management server for managing multiple devices via a network, the device management server comprising:

a failure prediction section for recognizing a state related to a failure based on diagnosis results obtained by diagnosis and sent by each of the devices, performing diagnosis as for the recognized state related to a failure, and predicting a device with a failure tendency based on diagnosis results obtained by the diagnosis (*column 2 lines 13-39 and column 4 lines 41-67, where the first diagnosis results are interpreted as the printer having a problem and requesting support, and the server sending a printer diagnostic utility 12 is interpreted as diagnosis related to failure; column 11 lines 19-37 discloses a warning condition, which implies a failure tendency*).

As in claim 17, Bernklau-Halvor discloses a failure prediction program for realizing a failure prediction system comprising:

multiple devices (*Fig. 1 #14; column 2 lines 13-39, printers*); and

a device management server for managing the multiple devices via a network with a computer (*Fig. 1 #10; column 2 lines 13-39, support server*);

wherein each of the multiple devices includes a device diagnosis section for diagnosing a state of the device to send first diagnosis results obtained by the diagnosis to the device management server (*column 2 lines 13-39, printer diagnostic utility*); and

the device management server includes a failure prediction section for recognizing a state related to a failure based on the first diagnosis results sent by the device diagnosis section of each of the devices, performing diagnosis as for the recognized state related to a failure, and

Art Unit: 2114

predicting a device with a failure tendency based on second diagnosis results obtained by the diagnosis (*column 2 lines 13-39 and column 4 lines 41-67, where the first diagnosis results are interpreted as the printer having a problem and requesting support, the server sending a printer diagnostic utility 12 is interpreted as diagnosis related to failure, and the diagnosis of usage information received thereafter by the support server is interpreted as second diagnosis results; column 11 lines 19-37 discloses a warning condition, which implies a failure tendency*).

As in claim 21, Bernklau-Halvor discloses a failure prediction method comprising:

diagnosing the state of multiple devices connected to a network (*column 2 lines 13-39 and column 4 lines 41-67*);

recognizing a state related to a failure based on results of the diagnosis of the multiple devices (*column 2 lines 13-39 and column 4 lines 41-67*);

performing diagnosis as for the state related to a failure (*column 2 lines 13-39 and column 4 lines 41-67*); and

predicting a device with a failure tendency based on the diagnosis results (*column 2 lines 13-39 and column 4 lines 41-67; column 11 lines 19-37 discloses a warning condition, which implies a failure tendency*).

As in claim 22, Bernklau-Halvor discloses a failure prediction method comprising:

diagnosing the state of multiple devices connected to a network with a first failure diagnosis program provided in each of the devices (*column 2 lines 13-39 and column 4 lines 41-*

Art Unit: 2114

67, where the first diagnosis program is interpreted as the printer driver which sends a support request);

recognizing a state related to a failure based on results of diagnosis by each first failure diagnosis program (*column 2 lines 13-39 and column 4 lines 41-67*);

sending to each of the devices a second diagnosis program for performing diagnosis as for the state related to a failure (*column 2 lines 13-39 and column 4 lines 41-67, where the server sending a printer diagnostic utility 12 is interpreted as sending a second diagnosis program*); and

predicting a device with a failure tendency based on diagnosis results notified by the second failure diagnosis program (*column 2 lines 13-39 and column 4 lines 41-67, where the diagnosis of usage information received thereafter by the support server is interpreted as second diagnosis program result; column 11 lines 19-37 discloses a warning condition, which implies a failure tendency*).

As in claim 25, Bernklau-Halvor discloses the diagnosis by each of the devices of the state of the device is performed when an event occurs (*column 2 lines 13-39 and column 4 lines 41-67, where the diagnosis is in response to a download of a usage utility*).

As in claim 27, Bernklau-Halvor discloses the detection of a state related to a failure by the failure prediction section of the device management server is performed based on a process leading to a failure of the device (*column 2 lines 13-39, column 4 lines 41-67, and column 11 lines 19-37, where a warning condition is interpreted as part of a process leading to a failure*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist et al. in view of Campbell et al. (U.S. Patent No. 5,768,495).

As in claims 2 and 18, Quist et al. teaches of a failure prediction system/program comprising:

multiple devices (*Fig. 1 # 11*); and

a device management server managing the multiple devices via a network (*Fig. 1 #s 14,15; column 4 lines 13-21 and column 5 lines 51-67*);

wherein each of the multiple devices includes a device diagnosis section for diagnosing a state of the device with a first diagnosis program related to the device management server to send first diagnosis results obtained by the diagnosis to the device management server (*Fig. 1 #12; column 3 line 57 through column 4 line 4, and column 5 line 45 through column 6 line 6*); and

the device management server includes a failure prediction section for recognizing a state related to a failure based on the first diagnosis results sent by the device diagnosis section of

Art Unit: 2114

each of the devices (*column 4 lines 13-29 and column 4 line 56 through column 5 line 3*), sending second diagnosis data for performing diagnosis as for the recognized state related to a failure, to devices to be diagnosed as for the state related to a failure among the devices (*column 4 lines 13-29 and column 4 line 56 through column 5 line 3*), and predicting a device with a failure tendency based on second diagnosis results notified by the second diagnosis program (*column 4 line 23 through column 5 line 35, and column 5 line 51 through column 6 line 6, where it is interpreted that after a first diagnosis is made by the server 14/15 and updated parameters are sent to a device 12, that a better determination and prediction of failure of a machine 11 would be determined during the next/second retrieval of diagnostic result information, which occurs constantly, as disclosed in column 4 line 24*).

However, Quist et al. fails to teach of sending a first and second diagnosis program to the device. Campbell et al. teaches of sending a first and second diagnosis program to a device (*column 2 lines 2-5, column 4 lines 8-14 and 26-34, and column 5 line 53 through column 6 line 37, where updated diagnostic code are interpreted as multiple diagnosis programs*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the program downloading as taught by Campbell et al. in the invention of Quist et al. This would have been obvious because the invention of Campbell et al. goes one step further than the invention of Quist et al. by downloading a complete program as opposed to just parameters used to alter a program (*Campbell et al.: column 2 lines 2-5, column 4 lines 8-14 and 26-34, and column 5 line 53 through column 6 line 37; Quist et al.: column 4 lines 48-64*), which would save processing time by the devices in order to diagnose a fault in less time.

* * *

10. Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist et al. in view of Smith (U.S. PGPub 2004/0225911).

As in claims 4 and 20, Quist et al. teaches the failure prediction section/program of the device management server comprises:

a communication part for communicating with the device (*Fig. 1; column 4 lines 2-4*);

a data processing part for creating failure occurrence tendency information showing a tendency of a state related to a failure based on the first diagnosis results sent by each of the devices and creating [a] second diagnosis program (*column 4 lines 41-55, where a neural network is interpreted as a program which is constantly being modified by the failure tendency information, and therefor is a constantly new program*); and

a storage part for storing the information on the device and the diagnosis results (*column 5 lines 46-50*).

However, Quist et al. fails to teach of a search part for searching for a device corresponding to the failure occurrence tendency information. Smith teaches of searching (*paragraphs [0040] and [0041]*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the searching as taught by Smith in the invention of Quist et al. This would have been obvious because the invention of Smith offers a means of minimizing the effect and downtime of a failing computer system (*paragraph [0010] last 4 lines*).

Allowable Subject Matter

11. Claim 3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

As in claim 3, the limitation of **a storage part for preserving settings of the first and second diagnosis programs and the first and second diagnostic results**, when read within the remainder of the limitations of the claim, makes the claim allowable over the prior art.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. PGPub 2001/0038688 Suzuki discloses preserving two diagnostic programs.

U.S. Patent No. 7,089,154 Rasmussen et al. discloses a fault prediction system.

U.S. Patent No. 6,397,247 Shirakawa et al. discloses failure prediction.

U.S. Patent No. 6,718,285 Schwartz et al. discloses printer failure diagnostics.

U.S. Patent No. 5,710,723 Hoth et al. discloses monitoring of multiple devices for failure.

Art Unit: 2114

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Contino whose telephone number is (571) 272-3657. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PFC
9/21/2006



SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER